FIRE DURING THE NIGHT, caused by a ¾-inch separation in a furnace chimney connector, destroyed the 30-room, three-story, wood-frame Sedgwick Hotel in Bath, Maine, on September 9, 1973. Three men and a woman lost their lives; 18 others were injured, some seriously. Four of those with minor injuries were fire fighters. The 100-year-old hotel had no fire detection or alarm system and no sprinklers. The fire burned in concealed spaces an estimated 1½ to 2 hours before breaking out into the lobby, where it was discovered by an occupant. The occupant saw a lobby couch on fire and, assuming that only the couch was burning, tried to smother the fire with his coat. Failing to put the fire out, he ran to a phone booth across the street and called the Fire Department at 4:13 am.

The hotel's oil-burning furnace had originally burned coal. At the time of its conversion, it had been walled in with masonry, and a zinc plate had been attached to the tongue-and-groove wood-plank ceiling of the basement furnace room. The horizontal connector, the metal pipe that conducted furnace combustion gases to the chimney, made a 180-degree turn in the furnace room before it passed through a masonry wall to a chimney entrance. The connector was about 18 inches below the zinc plate on the ceiling. The "normal" temperature in the room was so high that a person could not stay in the room more than a few minutes at a time. This heat had dried out the wood ceiling above the zinc plate. 1

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1 The Thirteenth Edition of the NFPA Fire Protection Handbook, in the discussion of clearances of heating appliances (Section 9, page 39), states that "...wood and certain other combustible materials may ignite at temperatures far below their usual ignition temperatures after long and continued exposure to relatively moderate heat ..."
When the top section of a horizontal joint in the connector came apart, leaving a $\frac{3}{8}$-inch opening, the hot exhaust gases escaped and further increased the temperature of the zinc plate and the wood above it.

On the night of the fire, the carbonized wood ceiling above the zinc plate ignited. The fire burned through the ceiling; it then entered the area between the wood joists, and spread horizontally through joist channels and vertically through the hollow spaces of nonfire-stopped walls. It burned into the lobby, where it ignited a couch and was discovered by the occupant who reported it. The heat and smoke, and soon the fire itself, then spread up open stairways to the second and third floors.

Some guests were awakened by the heat and shouted to awaken others. Some third-floor guests went down a fire escape to a second-floor balcony, from which they jumped or were rescued. Several guests were taken down Fire Department ladders from second- and third-floor windows, and a few second-floor guests jumped from windows. Two of the victims were found on the third floor. Another third-floor guest's body was found in the lobby, where it had fallen when a part of the center section of the building collapsed. The fourth victim's body was removed after extensive digging and removal of debris. Photo 1 was taken before the collapse of the center section of the building. Photo 2 was taken afterward.

Some of the rescued guests reported that they had smelled smoke when they returned to the hotel from a late party, shortly after 1 am. Investigating, the hotel clerk found a burned "pop tart" in a small kitchen adjacent to the lobby and assumed that to be the source of the odor, even though he picked up the tart and found that it was cold. One guest stated that the odor smelled more like burning wood. Yet no one reported this to the Fire Department. The clerk went to bed at about 2:50 am.

A state law requires that all hotels of combustible construction of two or more stories that were built after January 1, 1970, be protected by sprinklers. This century-old hotel was therefore exempt from the safety requirement. The result was death and destruction. △

The NEC and You (continued from page 30)

designed for use in sunlight, water, corrosive chemicals, and extreme temperatures. The type of wiring method for the supply wiring to the machine is not specified. However, the article does specify that an equipment grounding wire be provided whether or not a metal wiring method is used, and that the equipment grounding wire be at least as large as the largest ungrounded conductor.

A disconnecting means is required for the entire machine in addition to the specified individual or grouped motor disconnecting means. (Judging from the proposal, some of these machines are about a quarter-mile long and may require another quarter-mile or more of supply wiring to the machine!) Panel 11's tentative action was to hold this on the docket for further investigation by a Panel Task Force.

Article 760: Fire Protective Signaling Systems

This is a proposal by the NFPA Sectional Committee on Fire Protective Signaling Systems to transfer all of the wiring requirements now covered in NFPA Standards Nos. 71, 72A, 72B, 72C, and 72D to the NEC, and to retain the service and performance requirements in the other Standards. The tentative action of Panel 16 was to hold this proposal on the docket until a Panel Task Force could study the need for any revisions. Since the Panel indicated that it recognized the urgent need to make the transfer, it is likely that the Panel will make all necessary substantive revisions, as well as the many editorial revisions that are needed to make the Standards comply with the format of a Code, in time for adoption in the 1974 Code.

Highlights of some major revisions to existing rules will be discussed in coming issues of FIRE JOURNAL.

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